Final Report

Salmon River Subbasin Strategic Plan

Agreement # 11333-1-G011
Project ID#: 2001-PC-05

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ABSTRACT:

The Salmon River Restoration Council (SRRC) has been working on the Salmon River Restoration Strategy, with the U.S. Forest Service (FS), and the Salmon River Subbasin Fire Management Strategy (with numerous partners). The Salmon River Subbasin Restoration Strategy has been ongoing since 1997. The SRRC and the FS produced the draft Salmon River Subbasin Restoration Strategy (Strategy) in December of 1999. Since then, comments and changes have trickled in. The Strategy identified a Fire Management Strategy as a high priority in the subbasin. The Salmon River Subbasin Fire Management Strategy has been under development since 1999, with most of the progress being made under this grant. As part of the Fire Management Strategy the Salmon River has developed a Fire Safe Council that meets regularly and claims many stakeholders as members. Through the Fire Safe Council and this grant, a Phase I, Draft Fire Management Strategy has been developed.

INTRODUCTION:

The SRRC is a 501(c)(3) tax-exempt nonprofit corporation. An elected Board of Directors oversees the Council. The CRP gives direction to the Program and Technical Coordinators and provides approval for proposals and reports.

The SRRC creates various committees to address specific issues and needs as they arise. Currently, our active committees and sub-groups include Economic Development, Steelhead Trout, Noxious Weed Management, Native Plants, Local History, and the Steering Committee. In addition, the SRRC is part of several larger associations, including the Salmon River Learning and Understanding Group.

Participants in the SRRC activities have contributed over 6000 days of volunteer support. Considering that the population of our watershed is approximately 250 year-round residents, the commitment demonstrated by the community is encouraging.

The SRRC and the US Forest Service have almost completed the first cut of the Salmon River Subbasin Restoration Strategy, an aquatic-oriented plan. The plan was written with the intent that it be a living document. The Klamath Task Force Technical Work Group recently gave us a number of good comments. Some of the comments are incorporated in the final plan, but other suggestions will require more work than we are funded for at this time. Updates of the plan will incorporate changing conditions and new information.

DESCRIPTION OF STUDY AREA:

The Salmon River is one of the major subbasins of the Klamath River Basin. This 751 square mile watershed is 98.7% publicly owned. Federal management is by the Six Rivers National Forest (lower portion of mainstem) and the Klamath National Forest. Four communities lie widely dispersed within this watershed. There are approximately 250 people residing in the drainage. The Salmon River has long been known for its exceptionally high quality waters and high value fisheries as well as boasting one of the richest regions of species diversity in the temperate zones. It is noted to have the largest population of wild Spring Chinook salmon in California. In general, coniferous tree associations that change with elevations and management history characterize the Salmon River. The major forest types have various understory elements that characterize them specifically, depending on soil type and exposure.

The Salmon River region is a geologically complex area that includes three distinctive rock belts, primarily of metasedimentary rock, with many granitic intrusions. At elevations below 4000 feet, the granitic rock is deeply weathered and the terrain highly dissected. These steep slopes are prone to shallow rapid landslides. Landsliding is the dominant landforming process in the subbasin and large earthflow deposits occur in the area.

Under the California Fire Plan, the California Department of Forestry and Fire Protection, Siskiyou Ranger Unit, has designated the Salmon River area as a High Fire Risk. In fact, the Salmon River watershed is one of the highest risk fire areas on the Klamath National Forest. It has a high natural frequency of lightning occurrence. In recent years the Offield Fire (1973) burned the area near the river confluence. The Hog Fire (1977) burned extensively in the lower North and South Fork watershed and in Nordheimer and Crapo Creeks. The total area was about 80,000 acres. In 1987, wildfires burned 90,900 acres in four separate areas, covering much of the Salmon River subbasin. In 1994, the Specimen fire burned approximately 7,000 acres (3,045 acres within the LSR). It is estimated that 30% of the Salmon River subbasin has burned since the early '70s. Catastrophic fires in this area are known to denude riparian and upslope areas, which increases water temperatures. **The Salmon Subbasin Sediment Analysis (USFS, 1994) provides evidence that denuding of these steep, granitic slopes drastically increases the amount of sediment entering the streams and rivers below.**

The Salmon River subbasin is the home to several anadromous salmonid species, some of which are at risk of extinction.

At present, fuel loading is at an unnaturally high hazard level in many areas of the watershed. This current fuel loading threatens to severely damage the more biologically intact and/or recovering landscapes in the subbasin. **The fire history and fire potential of this subbasin establish fire as the number one threat to fisheries and general ecosystem health and diversity** (USFS/SRRC Salmon River Subbasin Restoration Strategy, 2000). The Karuk Tribe has also presented information pointing to the fact that

"Fifty years of fire suppression has resulted in an ecosystem with accumulations of flammable debris capable of fueling future catastrophic fires within the watershed." (Karuk Tribal Module for the Main Stem Salmon River Watershed Analysis, Draft, June 25th, 1996).

SUMMARY OF METHODS, ACTIVITIES, AND ACCOMPLISHMENTS:

We have been working on the Salmon River Subbasin Restoration Strategy. Major changes by the SRRC included expanding the Action Matrix, adding discussion on Spring Chinook and Education, and adding the enclosed Cooperative Fire Safe Plan, Phase I. Our current estimated delivery date is January 31st, 2002. Some of the TWGs comments will be incorporated, as changes to the document while the more complex comments will be listed for inclusion in the next revision/draft.

The Salmon River Fire Management Strategy is moving along. The Salmon River Fire Safe Council (FSC) has had a meeting almost every month during this contract period – December 19th 2000, January 23rd 2001, February 21st, March 14th, April 24th, June 5th, July 17th, and August 13th, and September 17th. We also held a Fire Safe Council Field Trip during Fire Awareness Week on April 24th. At the FSC meetings we have selected sign conventions for residence identification, planned out approved tanker water fill sites and developed the framework for fire management planning in the Salmon River area. The tanker fill site improvement work is continuing, with additions to the Mainstem and upslope areas. We spent several days in the field with Brenda Olson (Salmon River FS Biologist), Marla Knight (Salmon River FS Botanist), and Cathy Leavens (Salmon River Restoration Council Knapweed coordinator) evaluating the selected sites. Once approved and improvement work is completed, the sites will have a signpost with a blue dot to indicate it is a tanker fill site. We will also provide maps to each engine and extras to give out in a fire emergency.

The week of April 23rd was "Fire Awareness Week". This Week was sponsored by the FSC and included a Fire Safety Training refresher (April 23rd), a field trip to fuel reduction project sites and a Fire Safe Council Meeting (April 24th). The remaining three days were used to perform volunteer fuels reduction activities at private residences in Sawyers Bar, Forks of Salmon and Cecilville. We also coordinated and participated in the fire panel presentations at the Klamath Symposium being held at HSU May 22 – 26, 2001.

On August 17th, we held a Fire Safe Council public input meeting in Cecilville. In preparation for this meeting, 3'x4' DOQ maps were made of Cecilville, South Fork above Petersburg, and Taylor Creek. The scale was quite small (1:3,250) and people could easily pick out their roads, houses and other features on and around their private property. Houses, cabins, access roads, and areas with high fuel loading or high value were identified. Landowners and residents were helpful by giving us accurate information about areas they know better than anyone else.

The Salmon River Cooperative Fire Safe Plan – Phase I has been completed and is included as Appendix 1. This Plan draft was compiled with the active participation of the Salmon River Fire Safe Council. Also attached is a CDF produced "How to Make Your Home Fire Safe" brochure and a couple of SRRC produced flyers (Appendix 2). Appendix 3 is a list of prioritized properties that have owners signed up, with the grant identified, estimated number of days, and Parcel numbers when available. This is a work in progress; we will be modifying the spreadsheet and adding additional project areas as we gather more information. Appendix 4 is a map showing access routes for residents and fire fighters. These roads are identified as needing fuel reduction so they become "Safe Access Routes". Also included on the Appendix 4 map are private property areas that are identified as needing treatment and those that have already been treated.

The USDA National Fire Plan Program grant we applied for was not selected and we put in another application to the State Fire Safe Council. The State Fire Safe Council proposal was successful. This grant is BLM National Fire Plan Monies awarded through the State Fire Safe Council and the Sacramento Regional Foundation to the Salmon River Fire Safe Council. The SRRC is the fiscal sponsor for this grant.

The BLM FSC Project is divided into three parts:

1. Information and Education – Provide Landowners with Education material about fire's role in the Salmon River ecosystem and showing how they can keep their property Fire Safe.

2. Produce a Plan for three Project properties that will identify high-risk areas, access routes, and high value areas. Identify and prioritize fuel reduction activities needed to mitigate high-risk areas and protect high value areas.

3. Perform highest priority fuel reduction activities as described by the Plan. Activities will include shaded fuel break construction: thinning small over-stocked trees and flammable vegetation, trimming limbs on remaining vegetation, handpiling dead, down and thinned material, and chipping and burning handpiled material. No commercial materials will be generated and there will be no ground disturbing activities. Monitoring will be done before and after Project work using photo points and GPS/GIS.

The Salmon River Fire Safe Council also applied for a USDA Forest Service National Fire Plan Grant through CDF that, if successful will allow us to complete detailed plans identified in number 2 above on an additional 8-10 properties. These plans will be detailed enough to provide future fuel reduction efforts with information needed to prioritize where activities should occur. Both the BLM and the USFS grants will allow planning and fuel reduction activities to be completed on public as well as private property.

Fire Safe Council Planning committee meetings have been focusing on coming up with some kind of programmatic agreement between various agencies, community groups and

the Karuk Tribe that will allow agreed upon work to be completed in access and interface areas. This type of coordination and agreement will be continued in the FY 2002 funding year.

SUMMARY AND CONCLUSIONS:

While the Salmon River Subbasin Restoration Strategy is inching toward the final version, the Salmon River Fire Management Strategy and other activities that were identified in the draft Salmon River Subbasin Restoration Strategy are making good progress. The SRRC has developed several Cooperative Agreements to work on Fire Planning, Roads Assessments, and Noxious Weeds. The Fire Management Strategy has also brought in many other partners interested in returning some level of fire in the Salmon River Basin.

APPENDICES:

Appendix 1 – Phase I (Draft) – Salmon River Fire Management Strategy

Appendix 2 – "How to Make Your Home Fire Safe" brochure and Fire Safety Fliers

Appendix 3 – List of Prioritized Properties where activities will occur

Appendix 4 – Map showing Emergency Access Routes and private properties that have been treated and those in need of treatment.

Appendix 5 – Budget Page

Abstract

The Salmon River Cooperative Fire Safe Plan will develop a prioritized list of projects to focus and guide implementing organizations and funders. A key product of this Plan is the development of wildfire safety zones to reduce citizen and firefighter risks from future large wildfires. This project list will consist of pre-treatment and shaded fuelbreak construction to protect life and property in towns, residential areas, emergency access areas and private/public interface areas. Other activities that may be recommended include plantation thinning, underburning and natural fire management. The Salmon River Fire Safe Council (FSC) is sponsoring the development of this project. Cooperators on the FSC include community members, the U.S. Forest Service, other managing agencies, the Karuk Tribe, the Salmon River Volunteer Fire and Rescue (SRFR) and the Salmon River Restoration Council (SRRC).

Currently, there is no Fire Management Strategy for the Salmon River Subbasin. The Klamath National Forest (KNF) Fire Management Plan that will be released soon is designed to implement decisions identified in the Klamath National Forest Land Management Plan.

A Salmon River Cooperative Fire Safe Plan is tiered to various documents and direction, including:

1) U. S. Forest Service National Fire Plan
2) Land & Resource Management Plan – KNF
3) Fire Management Plan – KNF
4) Six Rivers National Forest Fire Management Plan FY 2001
5) Forest Wide LSR Assessment – KNF
6) Salmon River Subbasin Restoration Strategy – KNF/SRRC
7) Watershed (Ecosystem) Analysis – KNF
8) Salmon River Roads Assessment and Planning – KNF/SRRC
9) Salmon River Residential Risk Assessment – KNF/SRFR
10) Private Land Management Plans i.e. Godfrey Ranch Ecosystem Management Plan
11) Dialog of continued Karuk culture management strategies
12) SRRC Community Restoration Plan

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River. The major forest types have various understory elements that characterize them specifically, depending on soil type and exposure.

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Economic History

Historic economic patterns in the Salmon River have been driven by resource extraction. In 1850 gold was discovered on the river and the rush was on. Over 20 towns sprung up, and the population in the basin numbered in the thousands. Mining was a major occupation of residents through the 1930s. During the mining period timber was used in the basin for mines and buildings. Beginning in the late 1940s, the Forest Service began

earnestly selling timber off the National Forest lands. Timber production reached a peak in the late 1980s. Current timber production is low and geared more towards forest health than meeting production quotas. Another historic employment opportunity was government service. The Forest Service had their district headquarters in Sawyers Bar and stations in Cecilville, Forks of Salmon and Somes Bar. In the early 1980s, the USFS Salmon River District's office moved out of the watershed to Etna, which reduced the population in the basin. The Forks of Salmon Fire Station was closed and torn down in the early 1990s. Population levels have continued to drop to the current level of approximately 250 permanent residents. This low population has impacted the communities dramatically. Infrastructure facilities such as stores have closed, and we are losing our schools.

Past land management activities have combined with effective fire suppression and the wettest century in the last 1000 years to produce a great risk of catastrophic fire destroying our homes and resources.

Need for a Salmon River Cooperative Fire Safe Plan

The entire Salmon River watershed is at risk of catastrophic fire. Since 1911, records show that 44% of the basin has burned. A major heavy snow/wind storm in the winter of 1996 exacerbated the heavy fuels condition by breaking out the tops of trees and knocking trees over throughout the watershed. Previous years of drought and overstocking have also resulted in areas of heavy mortality. This winter (2000-2001) has been abnormally dry – the Salmon River flow is currently 20% of last year and less than 40% of the historic normal. These current conditions lead us to the realization that we could have a catastrophic fire that burns as much or more of the watershed in one season than has burned in the last 90 years!

The conditions and threats in the watershed mandate that we identify needs and prioritize projects in order to make our efforts effective in protecting life and property from fire and to reintroduce fire into the Salmon River watershed. Suppression activities and fuels reduction activities are currently being used to some effective extent in the watershed. As we start to identify the great extent of our fire risk, we must question whether current efforts are enough or being carried out in an effective manner. As we look at the range of conditions and concerns over the entire Salmon River watershed, we can begin to piece together a cohesive strategy that will detail specific areas that need specific treatments. The identification of priority areas will include the influence of these areas on each other and on adjacent areas – this will allow us to treat smaller areas that will have an impact on the larger landscapes in the basin.

A completed Fire Safe Plan will allow for the design of projects that will meet the objectives of the plan as well as provide economic opportunities to the community. Projects on private properties will provide employment for fuels reduction and survey crews. Projects on public property will be more extensive and potentially provide work for the long term. Both private and public lands will generate material that will have to be burned, chipped, used or removed. Utilization of alternative forest products will be

looked at as an option for removed vegetative material. There is a strong potential for the development of a cottage industry built around the utilization of alternative forest products. These different kinds of employment opportunities will diversify the economy of the Salmon River for the long term. While this plan will primarily address the private property and the private/public interface areas, we hope this can be used as a template for fire safe planning in the remaining Salmon River watershed. The development of a sustainable economy in the basin will partially depend on the willingness of the federal managing agency to provide contracting and employment opportunities to local community residents and companies.

Federal funds are critical to the success of this project for the following reasons:

1. The Salmon River is 98.7% federally managed. Even though this Fire Safe Plan will primarily deal with private property, each town and residential area is surrounded by public property. An adequate plan will have to address these interfacial areas as well as emergency access areas. Plan development should include federal funds and have the full participation of the federal managing agencies.
2. Federal management of the Salmon River is divided between two national forests. This makes cooperative planning more difficult.
3. Previous proposals to non-federal groups for planning in public/private interfacial areas of the Salmon River have been denied – primarily due to the overwhelming public ownership.

Goals and Objectives of the Project

The specific goals of this project are to:

1. Plan the development of wildfire safety zones to reduce citizen and firefighter risks and protect property from future large wildfires.
2. Plan for the reintroduction of fire into its natural role in appropriate areas (private and private/public interface areas) of the Salmon River basin in a manner that reduces the risk of future catastrophic fire and provides for the safety to residents, managers and resource users.
3. Plan fire protection and fire reintroduction activities in the Salmon River watershed that foster business and employment opportunities.

The identified objectives that will achieve the above goals include:

1. Identify private properties, residences, and improvements on the Salmon River.
2. Catalog fuels reduction projects that have been completed and rank their effectiveness.
3. Identify high fuels risk areas in towns and residential areas.
4. Identify high fuels risk areas in public/private interface areas.
5. Identify roads used for emergency response to towns and residential areas (and roads used for emergency egress).
6. Prioritize fuels reduction areas in private and public/private interface areas.
7. Determine Actions required for each fuels reduction area.

Methods

The Salmon River Fire Safe Plan will be developed using the Fire Plan Framework created by the Salmon River Fire Safe Council. This framework identifies these planning steps:

- Identify existing efforts:
  a. Defensible space around homes
  b. Evacuation Plan (Emergency Access)
    i. Notification Procedures
    ii. Guidelines for evacuation
    iii. Office of Emergency Services
    iv. High risk individuals
    v. Location of Helicopter landings
    vi. Location of Safe Areas in Neighborhoods
- Identify High Risk Areas (also identify low and medium risk areas)
- Identify defensible High Risk Areas (Opportunities)
- Identify Water Sources for fire protection efforts
- Update Pre-Fire Plan (Residential Risk Assessment)
- Identify Resource Values and Prioritize (Assets at Risk)
  a. Manmade
  b. Cultural
  c. Natural

The above list is not in order of importance – prioritization will be a component of the Plan.

Work Plan

Specific activities to be completed under this Plan:

1. Administrate and facilitate Salmon River Fire Safe Council (FSC)
2. Identify residences and properties at risk (GPS locations)
3. Identify roads necessary for safe egress by residents and safe access by fire fighters during a wildfire emergency
4. Identify areas containing high risk fuels
5. Identify other resources at risk
   a. Manmade
   b. Cultural
   c. Natural
6. Transfer collected information to GIS
7. Bring information to FSC meetings and planning committee meetings for input and prioritization

Cooperators

The current Salmon River Fire Safe Council participants include (but are not limited to):

Salmon River Restoration Council – Administrator *
Salmon River Volunteer Fire & Rescue *
Karuk Tribe Dept of Natural Resources *
Several Individual Private Landowner
Sawyers Bar Water District
US Forest Service Klamath National Forest *(3)
US Forest Service Six Rivers National Forest
US Fish & Wildlife Service
California Dept of Fish & Game
California Dept of Forestry and Fire Protection
County Air Quality Control Board
Godfrey Ranch Landowner's Association *
County Roads Crew
Otterbar Lodge
Salmon Mountain Forestry
Ecotech Consulting
Klamath Forest Alliance
National Marine Fisheries Service
Liberty Mining
Rick Robison Commercial Woodcutting
Doyle's Camp Cecilville Store
Forks Store
Several Concerned Citizens *
McBroom Packing and Guide Service
Salmon River Native Americans
Hayden Ranch
Klamath Salmon Fisherman's Guide Association
Black Bear Family Trust
Local Schools

* Asterisk denotes key Planning committee members.

Time Line

Funded by Klamath Basin Task Force FY2001

Form Salmon River Fire Safe Council ..... December 2000

Initiate Fire Safe Plan Framework Design ..... January 2001

Start to identify residences, emergency access routes
and other resources at risk ..... Spring-summer 2001

Funded by Klamath Basin Task Force FY2002 and others Sources

Continue to facilitate Salmon River Fire Safe Council ..... Ongoing

Initiate location of residences, emergency access routes
and other resources at risk ..... November 2001

Initiate GIS of residence locations, emergency access routes
and other resources at risk ..... December 2001

Initiate high-risk area inventories for residential
and public/private interfacial areas ..... February 2002

Initiate list of actions to provide protection and fire safe access
to residences in the Salmon River Basin ..... March 2002

Prioritize actions (Fire Safe planning committee) ..... April 2002

Appendix 5 - Budget Page

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Budget Line Item	Hours	Amount
A) Salary & Benefits		**$6,377.45**
B) Expendable Equipment Materials & Supplies		**$584.25**
Program Net Cost		**$8,476.40**
D) Administration		**$1,275.60**
Total Amount		**$9,752.00**

The following In-Kind Summary shows some hours that may be attributed to other related grants. This Agreement did not actually have any In-Kind requirement.

In-Kind Volunteer* Hours (Fire Safe Council Participation) Average $15/Hr	**700**	**$10,500.00**

* Includes Agency Personnel